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A latent core of dark traits explains individual differences in peacekeepers' unethical attitudes and conduct

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ABSTRACT

The influence of military members' malevolent personality traits on their ethical attitudes and behaviors has been the subject of research for decades. We investigated the relationship between malevolent individual difference factors (Machiavellianism, narcissism, psychopathy, the dominance facet of social dominance orientation, and right-wing authoritarianism) and aspects of military ethics before and during a peacekeeping mission to Mali. Based on pre-service responses from 175 Swedish soldiers, a factor analysis revealed a latent variable to which all individual difference factors contributed. This latent "core of darkness" was related to being more positive toward unethical behaviors both in a warzone and in the Swedish military organization. Extending these findings using a sub-sample of the soldiers (n = 63), we also found that the latent darkness variable prospectively predicted a higher frequency of self-reported insulting and cursing of noncombatants while in Mali. Our results suggest that malevolent individual difference factors have a common core and that moral transgressions during peacekeeping can be predicted and perhaps minimized by identifying soldiers who score high on this common core. However, more research is needed to understand the unique relations of some malevolent factors and different types of morally questionable warzone behavior.

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Dark Triad; social dominance orientation; right-wing authoritarianism; military ethics; peacekeeping

What is the public significance of this article?— Individual differences in malevolent traits share a common content. We found that this so-called "dark core" relates to unethical attitudes and behaviors toward people outside and inside the military organization. Although more research is needed to fully understand the content of the dark core, our results suggest that identifying people who score high may be useful when attempting to improve the ethical culture in organizations.

On March 12, 2006, four American soldiers from the 101st Airborne Division were implicated in the rape and killing of a 14 year old Iraqi girl, and the killing of her parents and 6 year old sister. Former Private First Class Steven Green was considered the mastermind of the rape and killings based on soldiers' accounts. According to a military forensic psychiatrist, Green had a pre-existing antisocial personality disorder that was characterized by a lack of concern for the suffering of others. In other words, Green was deemed a psychopath. The influence of military members' malevolent personality traits on their ethical attitudes and behaviors (e.g., war crimes) has inspired decades of research (Adorno, Frenkel-Brunswik, Levinson, & Sanford, 1950; Greiner & Nunno, 1994; Mann, 1973).

Adorno and colleagues proposed the Authoritarian Personality type (Adorno et al., 1950) to describe people who were predisposed to hostility toward people in lower status positions yet were obedient to those who held higher status positions, endorsed traditionalism, and held rigid beliefs. Greiner and Nunno (1994) also were motivated to understand the behavior of Nazi Germans in their research comparing the differences between the psychological records (i.e., Rorschach tests) of Nuremberg war criminals to incarcerated criminals diagnosed with Antisocial Personality Disorder.

Like Nazi Germany, the killing of noncombatants on 16 March 1968 in My Lai, South Vietnam during the Vietnam War also generated considerable individual difference research (Hochreich, 1972; Kelman & Hamilton, 1989; Mann, 1973). Nock, Kaufman, and Rosenheck (2001) found that severe acts of wartime violence among Vietnam War Veterans, such as terrorizing civilians, torturing prisoners of war, or mutilating bodies of enemies or civilians, were predicted by disruptive behavior before the age of 15. The commission of atrocities during the Vietnam War was retrospectively related to disconstraint,

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a MMPI-facet assessing an inclination to act impulsively and to take risks (Holowka et al., 2012).

More recently, the US's Mental Health Advisory Team (MHAT) collects data on soldier's "behavioral health issues during active combat" (MHAT I, 2003, p. 5) on an ongoing basis. The MHAT IV (2006) and MHAT V (2008) surveys included questions related to warzone ethics attitudes (e.g. the use of torture if doing so would save the life of a soldier or marine) and behavior (e.g. unnecessarily kicking or hitting a noncombatant). In the MHAT IV (2006), they found individual differences in anger levels and that anger was associated with unethical warzone behavior. In particular, American soldiers and marines who scored higher on an anger measure were more likely to insult or curse noncombatants, unnecessarily damage private property, and unnecessarily kick or hit a noncombatant. Although the MHAT surveys provide invaluable information, they do not examine the interplay between personality and unethical behavior.

The aim of this research is to examine the link between military members' malevolent personality traits on their ethical attitudes and behaviors on operations. Building on previous results from studies on civilians that suggest there is a common core among the Dark Triad and SDO consisting of callousness and manipulation (Jones & Figueredo, 2013), we expand this body of research to a military sample. In addition, we investigate whether this common core of malevolent dark traits is related to different domains of ethics. This is the first study to investigate in the same analysis how the Dark Triad, social dominance orientation, and right wing authoritarianism are related to warzone ethics. In addition, this is the first study to investigate the traits Machiavellianism and narcissism and their relationship to warzone ethics in a military sample. We administered the warzone ethics attitudes and warzone ethical behavior measures that were developed for the MHAT to Swedish peacekeepers deployed to Mali prior to their deployment and again when they were in-theater.

Personality traits and unethical attitudes and behaviors in a military context

In current psychology, malevolent traits have been investigated either under the heading the "Dark Triad" or as sociopolitical attitudinal factors, the most prominent being social-dominance orientation and right-wing authoritarianism. Paulhus and Williams (2002) introduced the concept of the Dark Triad, which focuses on three related non-pathological personality traits that have received considerable attention in the psychological literature, namely, Machiavellianism, subclinical narcissism, and subclinical psychopathy. It has been suggested that people high on the Dark Triad use manipulative and aggressive "get-ahead" strategies to increase their power and status at the expense of prosocial "get-along" strategies (e.g., they do not seek acceptance and approval from their peers; Jonason, Wee, & Li, 2015). When observed in the workplace, traits in the Dark Triad seem to have unique relationships with soft influence tactics, such as using charm and compliments, and hard influence tactics, such as manipulation, threats of punishment, or threats of appeal (Jonason, Slomski, & Partyka, 2012).

Machiavellianism is characterized by coldness, manipulativeness, and power-hunger (Paulhus & Williams, 2002). It is also positively related to intergroup threat and prejudice (Hodson, Hogg, & MacInnis, 2009).Yet the trait has been related to a greater endorsement of utilitarian (i.e., making decisions that bring about the maximum amount of well-being for all) solutions in hypothetical military ethical dilemmas that were administered to a civilian sample, such as making a choice between sacrificing a trapped and wounded soldier or rescuing him when it could lead to the death of the whole group (Bartels & Pizarro, 2011).

Like Machiavellianism, subclinical narcissism, which is characterized by personal feelings of grandiosity, entitlement, dominance, and superiority (Paulhus & Williams, 2002) has not previously been investigated with regard to warzone ethics. However, some empirical evidence from nonmilitary samples supports the view that narcissism is a risk factor for unethical attitudes and conduct. For example, Blinkhorn, Lyons, and Almond (2016) showed that narcissism was related to a higher endorsement of violence in war, measured with items such as the "Killing of civilians should be accepted as an unavoidable part of war." Moreover, McIntyre et al. (2007) found that high narcissism in men was related to higher risk of an unprovoked attack in a simulated wargame, where student participants played the leader of a country that had a conflict with another country concerning diamond mines on disputed territory.

Subclinical psychopathy, characterized by impulsivity, thrill-seeking, low empathy, and low anxiety (Paulhus & Williams, 2002), and the closely related concept of antisocial traits or behaviors, have previously been associated with unethical behavior in a military context. Holowka et al. (2012), for example, showed that disconstraint – a MMPI-facet assessing an inclination to act impulsively and to take risks – was retrospectively related to the commission of atrocities during the Vietnam War. Further, in a sample of British soldiers, MacManus et al. (2012) found that a history of pre-enlistment antisocial behaviors, such as getting into fights, being suspended or expelled from school, or criminal offending, were related to a range of

antisocial behaviors during enlistment. Nock et al. (2001) found that severe acts of wartime violence among Vietnam War Veterans (such as terrorizing civilians, torturing prisoners of war, or mutilating bodies of enemies or civilians) were predicted by disruptive behavior before the age of 15. Among the disruptive behaviors, overt and aggressive behaviors were especially relevant. Similarly, Resnick, Foy, Donahoe, and Miller (1989) found that pre-service antisocial behaviors were predictive of post-military antisocial behaviors. Finally, Booth-Kewley, Larson, Alderton, Farmer, and Highfill-McRoy (2009) found that the most important risk-factors for misconduct and anti-social behaviors in the US Navy were impulsivity, trait hostility, alcohol-use, and having antisocial friends.

There is far less psychological research on Machiavellianism and narcissism than on psychopathy or antisocial traits in a military ethics context, and data on antisocial traits are not the same as self-ratings on measures of psychopathy. Nonetheless, previous studies with military personnel suggest that psychopathy, or antisocial tendencies, may be the most important predictor of unethical behavior among military personnel. Although derived primarily from nonmilitary samples, a recent meta-analysis by Muris, Merckelbach, Otgaar, and Meijer (2017) looked at the relationship between the Dark Triad and eight psychosocial outcomes, such as aggression or delinquency, erratic behaviors, and morality problems. Controlling for the common statistical variance between the three traits, they found that psychopathy was the only factor related to all psychosocial outcomes. Machiavellianism was only related to two outcomes (interpersonal difficulties and antisocial tactics), and narcissism to one outcome (interpersonal difficulties), and with weaker correlations. This finding led Muris et al. (2017) to conclude that "psychopathy runs the show" (p. 194) when it comes to the negative psychosocial effects of the Dark Triad. They also criticized the lack of prospective or longitudinal studies, which limit the possibility of drawing conclusions about the predictive power of the Dark Triad.

Sociopolitical attitudes and unethical attitudes and behaviors in a military context

In addition to the Dark Triad, two sociopolitical attitudes present themselves as relevant candidates for predicting unethical attitudes and behavior. The first is the concept of social-dominance orientation (SDO), defined by Sidanius and Pratto (1999) as an individual difference variable describing an individual's attitude toward non-egalitarian and hierarchically structured social orders. Specifically, individuals high in SDO see the inequality between societal groups as legitimate and believe that superior groups should dominate inferior groups, even by force. More recently, the concept has been divided into two dimensions, SDO-dominance and SDO-egalitarianism (Ho et al., 2015), where the former had previously been related to attitudes toward being unethical in a war context (Larsson, Björklund, & Bäckström, 2012; Lindén, Björklund, & Bäckström, 2016).

The second candidate is right-wing authoritarianism (RWA). Individuals high in RWA are likely to endorse aggressive behavior sanctioned by authorities and to be tolerant of authorities who commit crimes (Altemeyer, 1998). Like SDO, RWA has been associated with attitudes toward being unethical in a war context (Larsson et al., 2012; Lindén et al., 2016). We will include SDO-dominance and RWA in the same model as the Dark Triad, and estimate both what they have in common and how they relate to warzone and organizational ethics.

The present study

In the present study, we separate military ethics from organizational ethics. Military ethics concerns attitudes related to situations that occur during service in a conflict zone; for example, whether noncombatants should be treated with dignity and respect and whether torture should be used to save the life of a fellow soldier (see, e.g., MHAT, 2006). Organizational ethics concerns unethical behavior within the military organization itself by promoting oneself at the expense of others, for example, or going against the public interest to protect the organization (see, for example, Wahn, 1993). Both these domains of ethics are relevant to the military. If unethical behavior can be predicted by dark traits, the military could use this knowledge to improve the selection of personnel.

To investigate these issues we studied a sample of Swedish peacekeepers immediately before they deployed to Mali to serve in a UN peacekeeping force. Data on the Dark Triad, SDO-dominance, RWA, attitudes toward warzone ethics, and the frequency of unethical behaviors conducted in the organization were collected during an assessment made before the soldiers deployed to Mali. We expected that a common core of "darkness" (estimated as a latent variable) could be found in our sample and that this core would relate both to warzone ethics and organizational ethics. Finally, we expected that the common core would be related to a measure of self-reported frequency of unethical behavior collected when returning from their peacekeeping service in Mali.

Method

Participants

A total of 175 Swedish soldiers (9 women; 166 men; age M = 29.94; SD = 6.53), all part of the United Nations (UN) peacekeeping mission in Mali (MINUSMA) were screened before deployment on the operation. Fifty-four of the participants served in a staff and supply company, 88 in a reconnaissance company, and 33 in a staff unit. Fifty-one had previous experience of peacekeeping service. Thirty-one were specialist officers (sergeants and sergeant majors), and 33 were officers (second lieutenant and above). Thirty-six percent of the soldiers (n = 63; 1 woman; 62 men; age M = 30.21; SD = 8.10) participated in the prospective part of the study. This sample was assessed in a second measurement session directly after homecoming six month later. Eleven of the participants served in the supply company, 39 in the reconnaissance company, and 12 in the staff unit. All participants belonged to a mechanized infantry regiment responsible for two Swedish contingents in Mali between June 2016 and June 2017, called MALI04 and MALI05. In our sample, 76 of the participants belonged to MALI04 and 99 to MALI05.

Materials

The Dark Triad was assessed with a Swedish translation of the Short Dark Triad (SD3) measure developed by Jones and Paulhus (2014). It contains 27 items. Nine measure Machiavellianism, nine measure narcissism, and nine subclinical psychopathy. Examples of Machiavellianism items included in the scale are "It's not wise to tell your secrets" and "Avoid direct conflict with others because they may be useful in the future." Examples of narcissism items are "I like to get acquainted with important people" and "I know that I am special because everyone keeps telling me so." Examples of psychopathy items are "I avoid dangerous situations" (reversely coded) and "It's true that I can be mean to others." Responses are made on a 5-point scale ranging from 1 = *disagree strongly* to 5 = *agree strongly*. Due to possible confounding with leadership (items such as "people see me as a natural leader" and "I insist on getting the respect I deserve"), we deliberately chose only four of the nine items to assess narcissism. Cronbach's alpha for the three subscales was .81 (Machiavellianism), .58 (narcissism), and .65 (psychopathy).

SDO-dominance was measured with the 8-item scale developed by Ho et al. (2015). Examples items are "Some groups of people are simply inferior to other groups" and "No one group should dominate in society" (reverse coded). Responses are made on a 7-point scale ranging from 1 = *very negative* to 7 = *very positive*. Cronbach's alpha for the scale was .70, indicating a relatively good internal consistency.

Right-wing authoritarianism was assessed with the 16-item Right-Wing Authoritarianism scale developed by Zakrisson (2005). The scale includes items such as "Our country needs a powerful leader, in order to destroy the radical and immoral currents prevailing in society today" and "Facts show that we have to be harder against crime and sexual immorality, in order to uphold law and order." Responses were made on the same response scale used in the SDO-dominance measure. Cronbach´s alpha for the scale was .65, indicating an acceptable internal consistency.

Unethical warzone attitudes were assessed by items from the fourth Mental Health Advisory Team's survey (MHAT-IV, Mental Health Advisory Team, 2006), a health survey issued by the US Army during Operation Iraqi Freedom 2005–07. It contained one part with five items assessing soldiers' attitudes toward warzone ethics. The items were (1) "All non-combatants should be treated with dignity and respect," (2) "All non-combatants should be treated as insurgents," (3) "Torture should be allowed if it will save the life of a soldier/marine (in this case changed to "a Swedish soldier"), (4) "Torture should be allowed in order to gather important info about insurgents," and (5) "I would risk my own safety to help a non-combatant in danger." Ratings were made on a 5-point scale ranging from 1 = *strongly disagree* to 5 = *strongly agree*. Cronbach's alpha was .70, indicating an acceptable internal consistency.

Unethical organizational behaviors in the Swedish military were assessed using the Unethical Behavior Measure (Wahn, 1993). It contains eight items measuring moral transgressions inside a work-organization. Examples of items are "Obeyed a direct request from your immediate supervisor even though you did not believe it was morally the right thing to do" and "Neglected to cooperate with co-workers so as to limit their success." Ratings were made on a 5-point scale ranging from 1 = *not at all* to 7 = *very often*. Cronbach's alpha was .81, indicating good internal consistency of the scale.

Three items from MHAT-IV were used to assess unethical behaviors of the Swedish force deployed to Mali. The items concerned how often soldiers had "Insulted/cursed at non-combatants in their presence," how often they had "damaged/destroyed property when it was not necessary," and how often they had "physically hit/kicked non-combatant when it was not

necessary" while serving in Mali. Ratings were made on a 5-point scale ranging from 1 = *never* to 5 = *five times or more*. However, since there was almost zero variance in item 2 and 3, we choose to use only item 1 in the analysis. This item was also the most common transgression reported in MHAT-IV.

Procedure

A baseline assessment of the individual difference factors, warzone ethical attitudes, and the frequency of unethical behaviors in the organization were made immediately prior to deployment to Mali. The second assessment was made during the first days after homecoming. Both measures were carried out at the garrison where the soldiers usually served. Ethical guidelines were followed in that participation was voluntary and participants were guaranteed anonymity, even though there were two measurements. A coding system was employed to make it impossible for the researcher to identify the soldier behind the questionnaire responses without having access to their real names.

To be able to estimate the common core of darkness and its relationship to other factors, we applied structural equation modeling using MPlus 7.11 (Muthén & Muthén, 2012). We first estimated the measurement models of the common core, warzone-ethics, and organizational ethics. Thereafter we estimated the suggested structural models. Both the measurement models and the structural models were estimated taking the variability in internal consistency (reliability) of the observed variables of the common core into account. To evaluate the results, we used standard estimates of model fit, i.e. root mean square error of approximation (RMSEA), comparative fit index (CFI) and χ^2, as well as the standardized root mean square residual (SRMR).

Results

Descriptive statistics

Table 1 presents the means and standard deviations of all baseline and post-service measures, and Table 2 presents the correlations between the measures. As can be seen, warzone ethics was positively correlated with all individual difference factors except sub-clinical narcissism, the highest correlation being with SDO-dominance. Unethical behavior in the organization was positively correlated to all individual difference factors, the highest correlation being with psychopathy. Further, in the subsample that took part in the prospective part of the study, baseline psychopathy had the strongest relationship to the frequency of unethical behaviors while in Mali.

Table 1. Descriptive statistics of individual differences and ethics variables.

	Baseline (*N* = 175)		Sub-sample (*N* = 63)	
Variable	*M*	*SD*	*M*	*SD*
Machiavellianism	25.28	5.93	24.69	6.15
Narcissism	10.15	2.62	9.48	2.58
Psychopathy	20.10	4.65	18.39	4.03
SDO-dominance	25.32	9.06	24.47	8.46
RWA	59.12	9.96	57.06	9.90
Warzone ethics	10.18	3.22	9.66	3.51
Unethical organizational behavior	1.68	0.87	1.57	0.84
Unethical warzone behavior	-	-	1.37	0.91

Descriptive statistics for each warzone ethics item were the following; "*All non-combatants should be treated with dignity and respect*" ($M = 1.67$; $SD = 0.87$); "*All non-combatants should be treated as insurgents*" ($M = 1.77$; $SD = 0.90$); "*Torture should be allowed if it will save the life of a Swedish soldier*" ($M = 2.45$; $SD = 1.16$); "*Torture should be allowed in order to gather important info about insurgents*" ($M = 1.88$; $SD = 0.92$) and finally "*I would risk my own safety to help a non-combatant in danger*" ($M = 2.41$; $SD = 0.94$).

Structural equation models

There were three latent variables in this study, one concerning the common core of darkness (DF) from the different measures of malevolent individual differences (Machiavellianism, narcissism, psychopathy, SDO-dominance, and RWA), one based on the items measuring warzone ethics, and one based on the items measuring organizational ethics. Model statistics for the measurement models of the three latent variables are presented in Table 3. The measurement model of the DF was estimated by maximum likelihood. The model (DF in Table 3) with no error correlations had an acceptable but far from perfect fit (loadings in Table 4). The problem was attributed to an error correlation between SDO-dominance and RWA. Adding this error correlation resulted in a model with almost perfect fit ($p > .05$). Because the observed variables varied in internal consistency (reliability), we also estimated a model taking lack of reliability into account. Table 4 displays the loadings for the model without and with error correlation between SDO and RWA. Loadings were generally higher for all observed variables, but the overall pattern was the same.

The observed variables of the two other latent variables were based on Likert items. We therefore estimated them as ordered categories using diagonally weighted least squares.

The measurement model of warzone ethics without error correlation had a rather good fit (see warzone

Table 2. Bivariate correlations between the individual difference factors and ethics.

	1	2	3	4	5	6	7
1. Machiavellianism	-	.32***	.50***	.41***	.27***	.30***	.32***
2. Narcissism	.24	-	.41***	.14	.07	.14	.22*
3. Psychopathy	.37**	.32**	-	.34***	.31***	.32***	.46***
4. SDO-dominance	.42**	−.04	.24	-	.46***	.47***	.24**
5. RWA	.17	−.14	.21	.45***	-	.44***	.22**
6. Warzone ethics	.32**	.03	.16	.32*	.41**	-	.24**
7. Unethical Organizational behavior	.53***	.08	.41**	.19	.08	.20	-
8. Unethical Warzone behavior (N = 63)	.20	.05	.42**	.30*	.16	.15	.20

*** $p < .001$, ** $p < .01$,* $p < .05$. The lower part presents the sub-sample, i.e. the participants in the prospective part of the study.

Table 3. Model statistics for the measurement models.

Latent variable	χ^2	*df*	*p*	CFI	RMSEA	SRMR	Mean z coeff (*SD* z coeff)
DF	27.11	5	<.001	0.86	.16	.06	.57 (.13)
DF with SDO-D/RWA	9.41	4	>.05	0.97	.09	.04	.56 (.16)
Warzone ethics	61.41	5	<.001	0.90	.25	.06	.66 (.15)
Warzone with ethics item3/item4	4.86	4	>.05	1.0	.04	.02	.60 (.13)
Organizational ethics	113.06	20	<.001	0.94	.16	.06	.70 (.08)
Organizational with ethics item1/item3	73.78	19	<.001	0.96	.13	.04	.69 (.10)

DF = common core of darkness, SDO/RWA = added error correlation between SDO and RWA.

Table 4. Standardized loadings of the measurement models.

Latent variable	DF	*DF with SDO/RWA*	*DF Rel*	DF Rel with SDO/RWA
Narcissism	.44	.48	.58	.63
Psychopathy	.71	.75	.79	.83
Machiavellianism	.70	.70	.86	.86
SDO	.56	.49	.67	.58
RWA	.45	.37	.56	.46

DF = common core of darkness, DF Rel = model with coefficients controlled for unreliability, SDO/RWA = added error correlation between SDO and RWA.

ethics in Table 3), but the model had a much better fit after adding an error correlation. The items "torture should be allowed if it will save the life of a Swedish soldier" and "torture should be allowed in order to gather important info about insurgents" were positively correlated. The estimations of the organizational ethics measurement model suggested good fit (see organizational ethics in Table 3), and an additional error correlation increased the fit somewhat. The standardized loadings were moderate to high for all latent variables, and adding the error correlations decreased the loadings for involved variables. In accordance with our first prediction, all five malevolent traits contributed to a common factor. Although all traits contributed to this latent variable, psychopathy and Machiavellianism contributed the most (see also Figure 1). Taken together, the measurement models supported the three constructs suggested in this study.

All structural models were estimated with diagonally weighted least squares.

The first prediction of the present study was that the DF would predict warzone and organizational ethics. The first model included all paths and error correlations from the measurement models and added paths from the DF to the two latent ethics variables. The fit of the model was good, χ^2 (129) = 265.4, $p < .001$, CFI = 0.916, RMSEA = .078, and SRMR = .07. The DF predicted both warzone ethics, $\beta = .735$, $p < .001$, and organizational ethics, $\beta = .502$, $p < .001$. It is also noteworthy that the correlation between the two latent ethics variables was non-significant.

The aim of the study was to investigate whether the DF alone contributed to the prediction of the ethics variables; therefore, we applied modification indices (MI). The largest MI for the structural model was between RWA and warzone ethics. The next largest MI was between SDO-dominance and warzone ethics. We added the path from RWA to warzone ethics and re-estimated the model (in this model, the path from DF to warzone ethics was fixed to the value of the previous model). The β path from DF to warzone ethics decreased to .340, $p < .001$, and the added path from RWA to warzone ethics was strong, $\beta = .493$, $p < .001$. The model fit was better, χ^2 (128) = 233.8, $p < .001$, CFI = 0.94, RMSEA = .069, and SRMR = .93. Using the MPLUS DIFFTEST, the difference was found to be significant, $\Delta\chi^2$ (Δ1) = 19.22, $p < .001$. We also added the path from SDO-dominance to warzone ethics, χ^2 (128) = 228.3, $p < .001$, CFI = 0.94, RMSEA = .068, and SRMR = .06, and this addition was also significant, $\Delta\chi^2$ (Δ1) = 7.69, $p < .016$. The β paths were .348 and .265 for RWA and SDO-dominance, respectively, with both significant at $p < .001$. The path from DF to warzone ethics was reduced in this model to $\beta = 0.246$, $p = .015$, and a substantial portion of the relation between DF and warzone ethics was implicit through RWA and SDO.

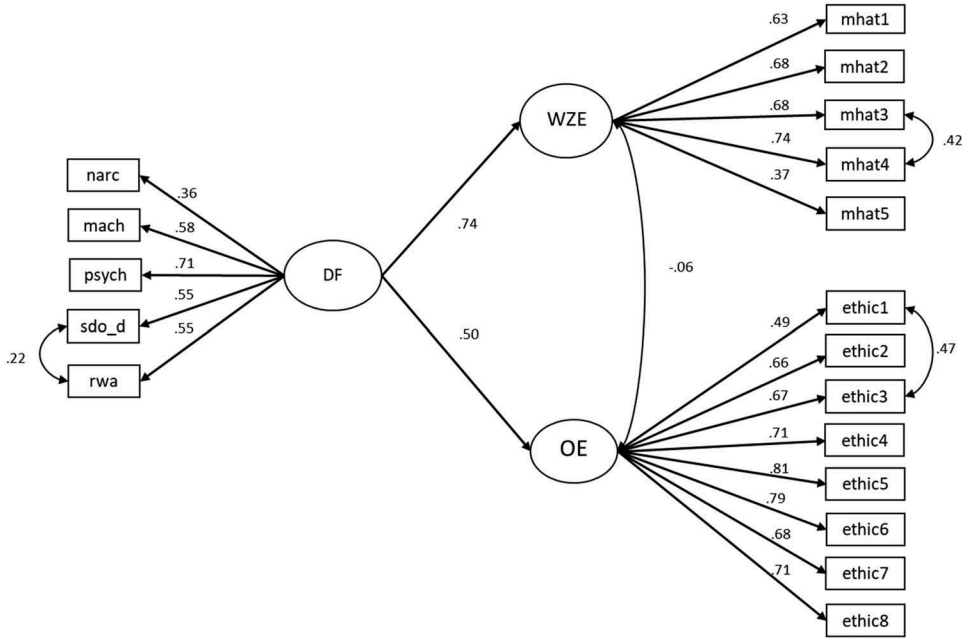

Figure 1. The final structural model. narc = Narcissism, mach = Machiavellianism, psych = Psychopathy, DF = common core of darkness, WZE = war zone ethics, OE = organizational ethics.

We tested the unique contribution of the DF to warzone ethics and found that it contributed significantly, $\Delta\chi^2$ ($\Delta 1$) = 6.21, p = .013 (using MPLUS DIFFTEST).

We tested the same models taking unreliability into account (estimated by Cronbach's alpha). The most notable change was that the β paths for RWA and SDO were as high as .73 and .72, respectively (both ps < .001), while in this model the β path from DF to warzone ethics was not significant. Because we already know that RWA and SDO are related to DF, we also estimated a model with the path from DF to warzone ethics fixed to the value of the first model (the one without RWA and SDO paths to warzone ethics). In this model, the β path from DF to warzone ethics was .371 (p < .001), the path from RWA was significant at .380 (p = .003), while the path from SDO was not significant at .121. The last model clearly supports that RWA contributes uniquely to warzone ethics, but also supports that RWA and SDO have a strong relation to DF.[1]

Prediction of unethical behavior in Mali

In the subsample of 63 soldiers, we investigated the predictive relationship between the latent darkness variable and the frequency of mistreating noncombatants in Mali with insults and cursing. This variable was obviously Poisson distributed, with most participants reporting zero insults; therefore, we tested the relation with the General Linear Model using the Poisson model. It was found that the level of DF (obtained from the measurement model) was positively related to the number of reported insults, B = 0.32, SE = 0.14, 95% CI [0.05, 0,60], Wald χ^2 = 5.322, p = .021.

Discussion

We investigated the relationship between soldiers' malevolent individual difference factors and measures of ethics in a sample of Swedish peacekeepers deployed to Mali. As predicted, we found a latent "core of darkness" in our soldier sample. This core was related both to warzone ethics and to the frequency of unethical organizational behaviors. Finally, we found that the latent core predicted self-reported frequency of unethical behavior collected when returning from peacekeeping deployment to Mali. All three predictions received full support in that (1) a latent darkness variable could be estimated and (2) this factor was statistically related to both lower warzone ethics and more unethical behavior in the Swedish military organization, and (3) to more unethical behavior toward noncombatants while serving in Mali.

The latent dark core variable

The identification of a latent variable underlying the Dark Triad, SDO-dominance, and RWA replicates the findings of Jones and Figueredo (2013). Psychopathic sub-traits seems to be the most important factor

contributing to the latent variable in both studies. We have also extended this finding by including a measure of RWA and by investigating a military sample in a real-life context, both of which constitute unique contributions to the knowledge on personality and military ethics. Nonetheless, the comparability of the two studies might be limited because we used the SD3 (Jones & Paulhus, 2014) to measure the Dark Triad, while Jones and Figueredo (2013) used questionnaires with sub-facets.

It is also clear from previous studies on RWA and warzone ethics that this sociopolitical attitude construct includes an aspect of malevolence. Our findings are consistent with this in that RWA also loaded on the latent variable. Several previous studies on the relationship between SDO, RWA, and aggressive measures in a military ethics context (Larsson et al., 2012; Lindén et al., 2016) have found positive correlations and, in light of our results, it appears reasonable to assume that the dark core underlies much of the correlations between these constructs.

The dark core is related to warzone and organizational ethics and predicts transgressive behavior

Warzone ethics and the frequency of unethical organizational behavior were not correlated in our structural model, but both were predicted by the dark core. In other words, this latent factor was related to at least two qualitatively different ethical variables relevant for the military organization. To our knowledge, showing that a malevolent individual difference factor is related to attitudes toward warzone ethics in general – and not only to war crimes – is a unique contribution to the literature (see, for example, Holowka et al., 2012).

Military personnel sometimes refer to "bad apples," that is, to soldiers who are indifferent to ethics in warzones. Our individual difference approach does not compare types of people, but the degree to which a person holds certain unethical attitudes and the extent to which he or she tends to behave unethically. The relationship between the dark core and warzone ethics indicates the value of individual difference measures for understanding the unethical behavior of military personnel toward combatants and noncombatants that do not belong to their own side in the conflict. The results also suggest that especially RWA, but to some extent also SDO, have a unique relation with warzone ethics.

Similarly, the relationship between the dark core and the frequency of unethical organizational behavior shows the value of individual difference measures in understanding unethical behavior among military personnel toward their fellow soldiers. It is compatible with the view that people high in the Dark Triad apply manipulative or aggressive strategies to increase their level of power and status at the expense of social, get-along strategies (Jonason et al., 2015).

The finding that the latent variable prospectively predicted a higher frequency of transgressive behaviors while the peacekeepers were serving in Mali strengthens our conclusion that we have captured something relevant in our study. As pointed out by Muris et al. (2017), the lack of prospective and longitudinal studies investigating the Dark Triad has limited the possibility of drawing conclusions about its predictive power. We contribute to the literature by showing that the malevolent traits have prospective predictive power, at least with regard to minor moral transgressions during peacekeeping.

Future research

A differential perspective investigates how situational characteristics interact with each malevolent trait in predicting moral transgressions among military personnel. When adopting a person x situation approach there is need to understand the unique element of each malevolent trait beyond the latent core (Jones & Figueredo, 2013, make a similar suggestion). Methodologically, this question may be approached by collecting data about moral attitudes or behaviors in a range of qualitatively different wartime situations, using factor analysis to create facets of situations, for example the use of torture, sacrificing civilians to gain military goals and harsh treatment of noncombatants and then relating these situational facets to the residual of each trait when controlling for the dark core. For example, based on the findings by Blinkhorn et al. (2016), researchers could use situations where a deliberate ethical violation may stand between gaining a strategic outcome, a situation which might activate a Machiavellian disposition beyond the dark core. Better understanding of what types of ethical challenges that soldiers face will facilitate understanding of which malevolent traits that matter in what situations.

Additionally, there is a need to understand the conceptual relationship between the Dark Triad and sociopolitical attitudes such as SDO and RWA in the prediction of soldiers' unethical attitudes and behaviors. In a racism context, Jonason (2015) argues that the Dark Triad is a distal predictor of that outcome while SDO and RWA are proximal predictors, i.e. he suggests a model in which the Dark Triad predicts sociopolitical attitudes that in turn predict racist attitudes. Other researchers such as Duckitt (2001) and Ekehammar, Akrami, Gylje, and Zakrisson (2004) propose the same type of model regarding the relationship

between personality and sociopolitical attitudes and it appears reasonable that such an approach can be adopted in a military ethics context too.

Limitations

The relatively low number of participants in the prospective part of the study could have caused a sampling bias in that some of the soldiers who self-selected to participate might have had less opportunity to act abusively due to their service role. For example, the 12 participants in the staff unit might not have been in a position to mistreat noncombatants, unlike the reconnaissance soldiers who were more or less constantly operating in the conflict area.

Additionally, given the nature of the malevolent traits and the fact that the study was conducted when the soldiers were on active duty, there is a risk that the responses suffered from either a social desirability bias or underreporting, which would have affected the relationships with the criterion-variables (Muris et al., 2017).

Another limitation concerns the use of one item to assess transgressive behavior. In the MHAT, four additional items were developed to assess behaviors, which, for example, focused on aspects such as damaging and destroying property when it was not necessary and physically hitting or kicking a non-combatant when it was not necessary. But the MHAT was developed for conventional warfare in the war against terrorism, so we could not easily apply these items to Swedish soldiers in a UN peacekeeping context. Finally, we also see the use of SD3 to measure the Dark Triad as a potential limitation. This scale has revealed better internal consistency in previous research on college students, and exists in a validated Swedish version, the latter being the reason why it was chosen for the current study instead of other measures such as the Dark Triad Dirty Dozen (Jonason & Webster, 2010). However, as was pointed out by Jones and Figueredo (2013), the use of short scales with few items to capture multifaceted concepts such as psychopathy might imply that the validity of the concept is sacrificed in the hunt for more effective and faster data collection. The same problem applies to both the SD3 and the Dark Triad Dirty Dozen suggesting that psychometrical improvements of measures of the Dark Triad would be desirable. In an attempt to test whether reliability did affect the models and the models' coefficients we re-estimated the models using internal consistency as an estimation of reliability. However, Cronbach's alpha, as was used here, is only one possible measure of reliability. It would have been preferable to have more indicators of the level of reliability of the scales.

Applied perspective

Together with previous findings, our study arguably has an applied value in selecting soldiers for peacekeeping service. Instead of using different measures of the five malevolent individual difference factors separately, effort should be put into identifying items that load strongly on the latent variable, and then into developing a measure based on these items. Soldiers applying for a peacekeeping mission who score high on that test should be denied or be reviewed for service in light of previous behavior. Whether such a test could be used to select soldiers for conventional warfare remains to be seen. Yet the need to improve military recruitment programs and to sort out bad candidates at a very early stage is something that has been recommended after ethical scandals such as Abu-Ghraib (Bartone, 2010). However, identifying and sorting out bad candidates might provide a challenge for the military system. Observations ranging from WWI to the Vietnam War suggest that some military psychiatrists have actively recommended that "the best killers" should serve in positions where aggression is deemed important (Bourke, 2000), which may go against sorting out candidates who are high on the dark core. Historical data may have limited value, but given that 19.6 percent of the American soldiers recruited in 2006 had a "moral waiver", i.e. were allowed to become soldiers despite having committed an unlawful action before entering the military, which usually should have made them unfit for service (Boucai, 2007), suggests that "bad apples" may be accepted in the U.S armed forces when there is a need to fill up the ranks.

Further, previous findings showing that soldiers with a history of antisocial behavior before enlistment were more likely to misuse alcohol, fight, and be aggressive during service (MacManus et al., 2012) also suggests that the military would benefit from actively trying to screen out soldiers with antisocial traits already evident during the recruitment process. Using a more focused test to detect these traits might be a solution. On the other hand, the unique contribution of RWA to war-zone ethics suggest that we should not focus exclusively on the dark core because other factors can influence a soldier's ethical behavior. Moreover, in light of findings showing that SDO seems to increase during cadet training (Nicol, Charbonneau, & Boies, 2007) and that

a mental illness during service is related to antisocial and morally transgressive behavior (Blanc, Warner, Ivey, & Messervey, 2018), we also think it is important to investigate whether malevolent traits are strengthened by military training or combat exposure .

Conclusions

We have shown that there is a common dark core underlying peacekeepers' malevolent individual difference factors, which can be represented as a latent variable. This dark core is related to different unethical attitudes and behaviors toward people outside and inside the military organization. Although more research is needed to fully understand the content of the dark core, our results suggest that attempts to identify soldiers who score high may be useful when attempting to improve the ethical culture in peacekeeping units.

Notes

1. We also tested whether RWA and SDO added unique variance to warzone ethics when added to the DF only model. RWA uniquely added to DF, but also to a model including both DF and SDO. SDO only added uniquely to warzone ethics in a model with DF, but not when both DF and RWA were in the model.

   As mentioned in the methods section, a reduced set of items was used to construct the narcissism scale. We checked whether this reduction influenced the estimations and found that it had a slight effect on the loadings in the measurement model of the DF, where narcissism had about .10 weaker loading. Importantly, the predictions of warzone and organizational ethics were almost exactly the same when using the complete version of the narcissism scale.

Disclosure statement

No potential conflict of interest was reported by the authors.

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